Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1201txs

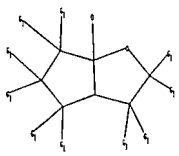
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

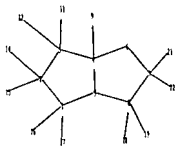
* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 02	LMEDLINE coverage updated
NEWS 3	JUL 02	SCISEARCH enhanced with complete author names
NEWS 4	JUL 02	CHEMCATS accession numbers revised
NEWS 5	JUL 02	CA/CAplus enhanced with utility model patents from China
NEWS 6	JUL 16	CAplus enhanced with French and German abstracts
NEWS 7	JUL 18	CA/CAplus patent coverage enhanced
NEWS 8	JUL 26	USPATFULL/USPAT2 enhanced with IPC reclassification
NEWS 9	JUL 30	USGENE now available on STN
NEWS 10	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 11	AUG 06	BEILSTEIN updated with new compounds
NEWS 12	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 13	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 14	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 15	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 16	AUG 27	USPATOLD now available on STN
NEWS 17	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 18	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 19	SEP 13	FORIS renamed to SOFIS
NEWS 20	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 21	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 22	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 23	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 24	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt

NEWS EXPRESS 19 SEPTEMBER 2007: CURRENT WINDOWS VERSION IS V8.2, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

```
 NEWS HOURS     STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN     Welcome Banner and News Items
 NEWS IPC8      For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

  All use of STN is subject to the provisions of the STN Customer
  agreement.  Please note that this agreement limits use to scientific
  research.  Use for software development or design or implementation
  of commercial gateways or other similar uses is prohibited and may
  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *


FILE 'HOME' ENTERED AT 14:13:04 ON 08 OCT 2007

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 14:13:23 ON 08 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    7 OCT 2007  HIGHEST RN 949564-53-8
DICTIONARY FILE UPDATES:   7 OCT 2007  HIGHEST RN 949564-53-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\10520282.str
```





chain nodes :
9 11 12 14 15 16 17 18 19 21 22
ring nodes :
1 2 3 4 5 6 7 8
chain bonds :
1-16 1-17 2-14 2-15 3-11 3-12 4-9 7-21 7-22 8-18 8-19
ring bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8
exact/norm bonds :
1-16 1-17 2-14 2-15 3-11 3-12 4-9 7-21 7-22 8-18 8-19
exact bonds :
1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8
isolated ring systems :
containing 1 :

G1:H,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS
11:CLASS 12:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 21:CLASS 22:CLASS

```
L1      STRUCTURE UPLOADED

=> s l1
SAMPLE SEARCH INITIATED 14:13:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      162 TO ITERATE

100.0% PROCESSED      162 ITERATIONS                                 12 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         2477 TO     4003
PROJECTED ANSWERS:              33 TO      447

L2           12 SEA SSS SAM L1

=> s l1 ful
FULL SEARCH INITIATED 14:13:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -     2862 TO ITERATE

100.0% PROCESSED     2862 ITERATIONS                               270 ANSWERS
SEARCH TIME: 00.00.01

L3          270 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                 172.10     172.31

FILE 'CAPLUS' ENTERED AT 14:14:00 ON 08 OCT 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 8 Oct 2007  VOL 147 ISS 16
FILE LAST UPDATED: 7 Oct 2007  (20071007/ED)
```

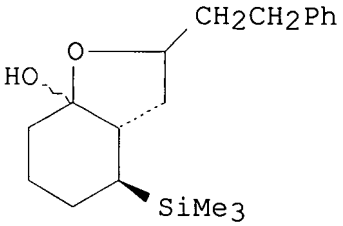
Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

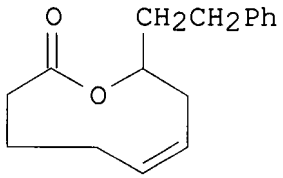
```
=> s l3
L4          46 L3

=> s l4 and py=<2003
      23955541 PY=<2003
L5          27 L4 AND PY=<2003

=> d l5 ibib abs hitstr hitind 1-27
```

L5 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:485795 CAPLUS
DOCUMENT NUMBER: 139:261151
TITLE: New silicon-mediated ring expansion of n-sized conjugated cycloalkenones into homoallylic n+3 lactones
AUTHOR(S): Hatcher, Mark A.; Borstnik, Kristina; Posner, Gary H.
CORPORATE SOURCE: School of Arts and Sciences, Department of Chemistry, The Johns Hopkins University, Baltimore, MD, 21218, USA
SOURCE: Tetrahedron Letters (2003), 44(29), 5407-5409
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:261151
GI



I



II

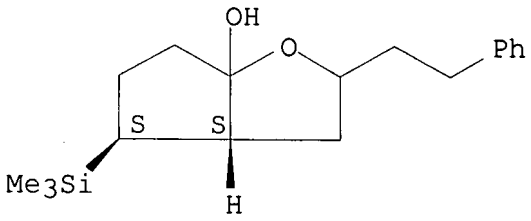
AB Silicon nucleophilic β-addition to various 2-cycloalkenones, followed ultimately by mild and rapid α-alkylation of the corresponding cycloalkanone enolates using diverse epoxides and BF3·OEt2, produces useful γ-lactols, e.g., I, and γ-hydroxy ketones. Hypervalent iodine-promoted oxidative fragmentation then yields

regiospecifically unsatd., 3-atom ring expanded, 8-10 membered homoallylic
lactones, e.g., II, with good control of alkene geometry.

IT 600734-94-9P 600734-95-0P 600734-96-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(ring enlargement of cycloalkenones into homoallylic lactones via silylated intermediates and hypervalent iodine-promoted oxidative fragmentation)

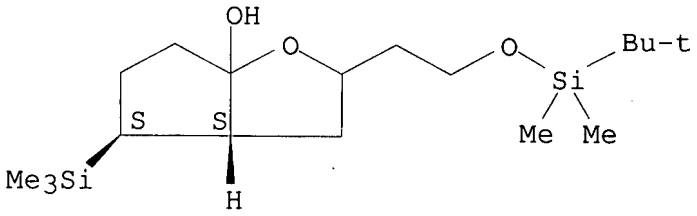
RN 600734-94-9 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-2-(2-phenylethyl)-4-(trimethylsilyl)-, (3aR,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



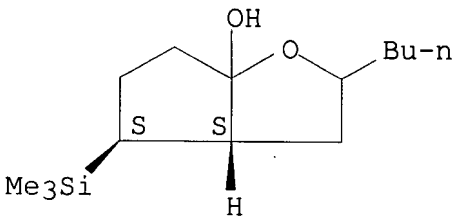
RN 600734-95-0 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, 2-[2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]ethyl]hexahydro-4-(trimethylsilyl)-, (3aR,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 600734-96-1 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, 2-butylhexahydro-4-(trimethylsilyl)-, (3aR,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.



CC 27-21 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 26
IT 55942-21-7P 600734-81-4P 600734-82-5P 600734-83-6P 600734-84-7P
600734-85-8P 600734-86-9P 600734-93-8P 600734-94-9P
600734-95-0P 600734-96-1P 600735-00-0P 600735-01-1P
600735-02-2P 600735-04-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT
(Reactant or reagent)
(ring enlargement of cycloalkenones into homoallylic lactones via silylated intermediates and hypervalent iodine-promoted oxidative fragmentation)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L5 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:716217 CAPLUS
DOCUMENT NUMBER: 137:247595
TITLE: Preparation of bicyclooxaoctanes and bicyclooxaoctenes
as optical resolving agents and method for optical resolution of alcohols using said agents
INVENTOR(S): Nemoto, Hisao; Shibuya, Masayuki
PATENT ASSIGNEE(S): Zeon Corporation, Japan
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

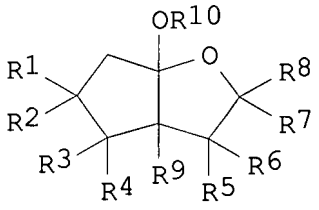
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072505 <--	A1	20020919	WO 2002-JP1644	20020225
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1364933 <--	A1	20031126	EP 2002-700734	20020225

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

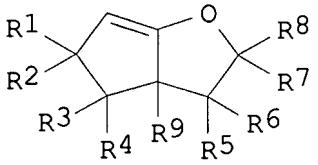
JP 3901093	B2	20070404	JP 2002-571427		20020225
US 2004077098	A1	20040422	US 2003-468887		20030826
US 2007155994	A1	20070705	US 2007-683322		20070307
PRIORITY APPLN. INFO.:			JP 2001-50958	A	20010226
			WO 2002-JP1644	W	20020225
			US 2003-468887	A3	20030826

OTHER SOURCE(S): MARPAT 137:247595

GI



I



II

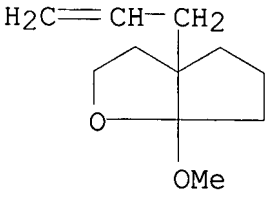
AB This document discloses : an optical resolving agent comprising at least one of compds. represented by the formulas I and II (R1 to R8 each represents hydrogen or C1-20 alkyl; R9 represents optionally substituted C1-20 alkyl, optionally substituted C1-20 alkenyl, formyl, or acyl; and R10 represents C1-6 alkyl; provided that the mol. represented by the formula I is of the cis configuration with respect to R9 and OR10); and a method for optically resolving an alc. (R11)(R12)(R13)COH (R11, R12, and R13 each represents hydrogen or optionally substituted C1-20 alkyl, provided that at least one of R11, R12, and R13 is not hydrogen). The method of optical resolution is highly suitable for general purposes. By the title method, a mixture of optical isomers of any of various alcs. can be optically resolved easily and industrially advantageously.

IT 461025-78-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving agents and method for optical resolution of alcs. using said agents)

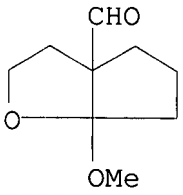
RN 461025-78-5 CAPLUS

CN 2H-Cyclopenta[b]furan, hexahydro-6a-methoxy-3a-(2-propen-1-yl)- (CA INDEX

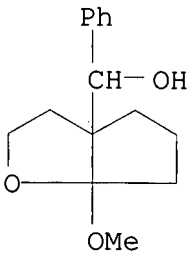
NAME)



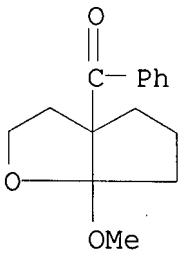
IT 461025-70-7P 461025-71-8P 461025-72-9P
461025-73-0P 461025-74-1P 461025-75-2P
461025-76-3P 461025-77-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving
agents and method for optical resolution of alcs. using said agents)
RN 461025-70-7 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-carboxaldehyde, hexahydro-6a-methoxy- (9CI) (CA
INDEX NAME)



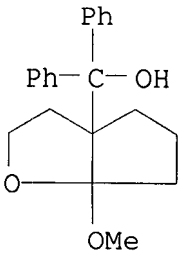
RN 461025-71-8 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-methanol, hexahydro-6a-methoxy-α-phenyl- (9CI) (CA INDEX NAME)



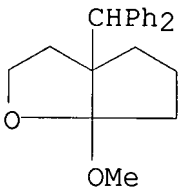
RN 461025-72-9 CAPLUS
CN Methanone, (hexahydro-6a-methoxy-3aH-cyclopenta[b]furan-3a-yl)phenyl- (9CI) (CA INDEX NAME)



RN 461025-73-0 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-methanol, hexahydro-6a-methoxy-α,α-diphenyl- (9CI) (CA INDEX NAME)

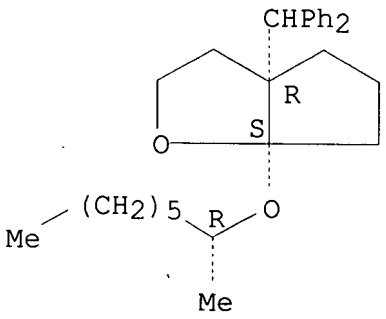


RN 461025-74-1 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-methoxy- (9CI) (CA
INDEX NAME)



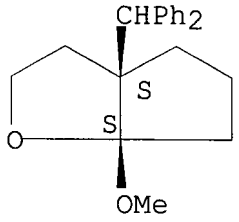
RN 461025-75-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methylheptyl]oxy]-, (3aR,6aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



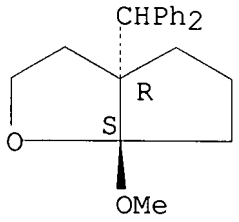
RN 461025-76-3 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-methoxy-, (3aS,6aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 461025-77-4 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-methoxy-, (3aR,6aS)- (9CI) (CA INDEX NAME)

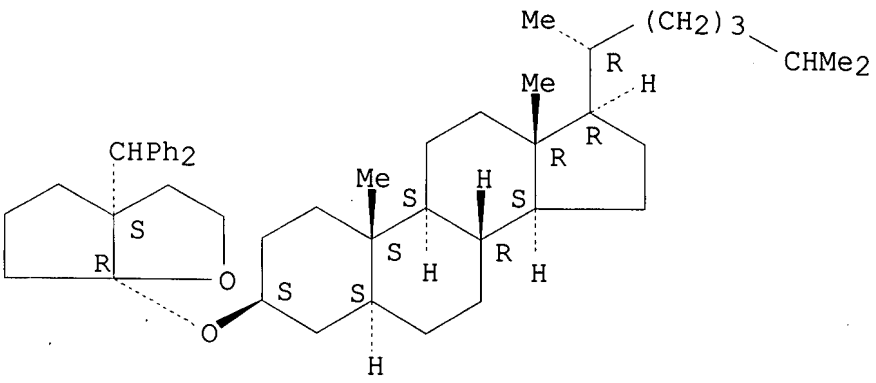
Absolute stereochemistry. Rotation (+).



RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving agents and method for optical resoln. of alcs. using said agents)

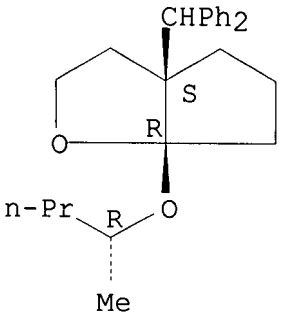
RN 461025-41-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 6a-[(3β,5α)-cholestan-3-yloxy]-3a-(diphenylmethyl)hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



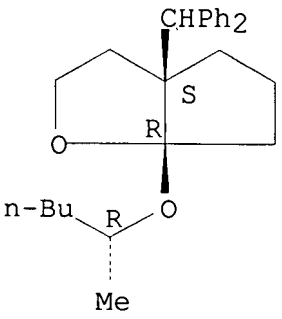
RN 461025-42-3 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1R)-1-methylbutoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



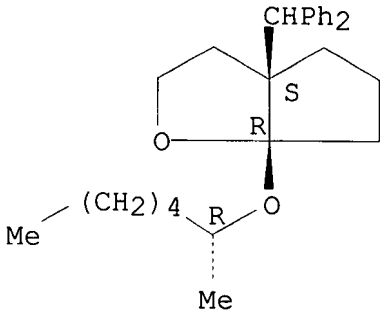
RN 461025-43-4 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methylpentyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



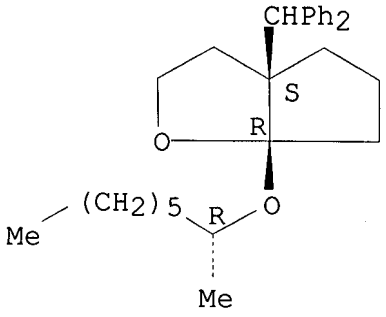
RN 461025-44-5 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methylhexyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



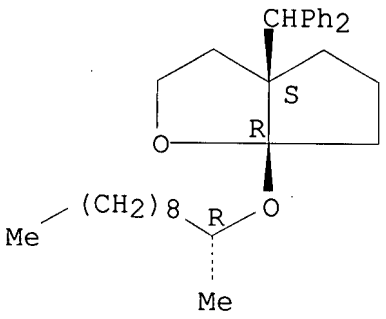
RN 461025-45-6 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methylheptyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



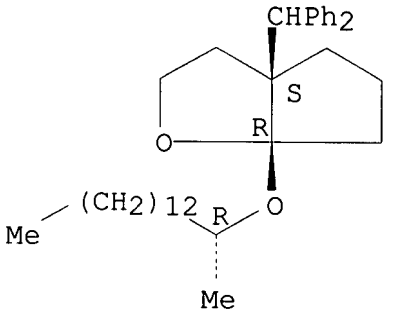
RN 461025-46-7 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methyldecyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



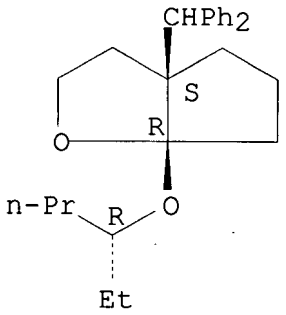
RN 461025-47-8 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-methyltetradecyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



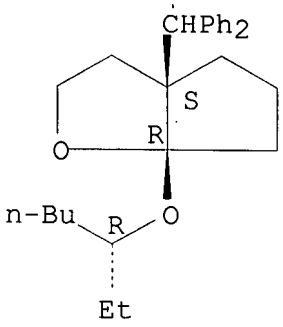
RN 461025-48-9 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[(1R)-1-ethylbutoxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



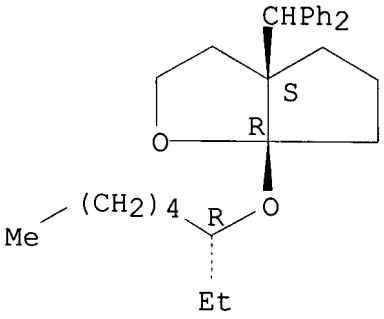
RN 461025-49-0 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1R)-1-ethylpentyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



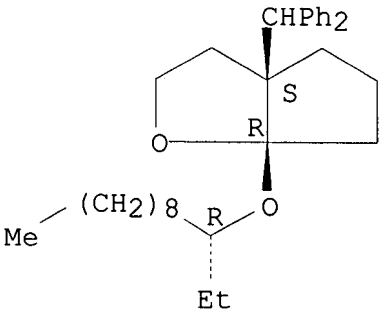
RN 461025-50-3 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1R)-1-ethylhexyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 461025-51-4 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1R)-1-ethyldecyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

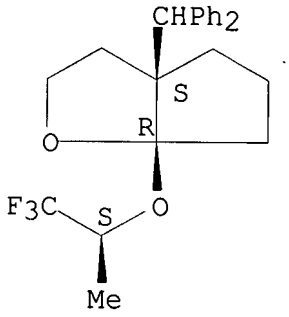
Absolute stereochemistry.



RN 461025-52-5 CAPLUS

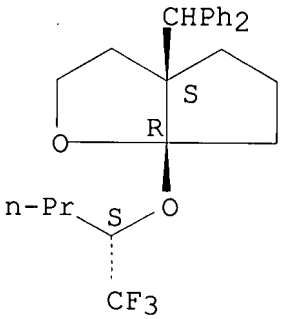
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1S)-2,2,2-trifluoro-1-methylethoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



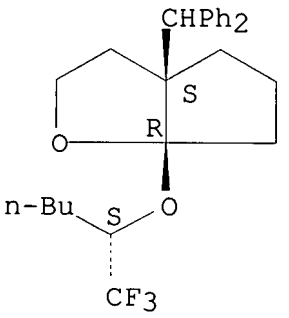
RN 461025-53-6 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1S)-1-(trifluoromethyl)butoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



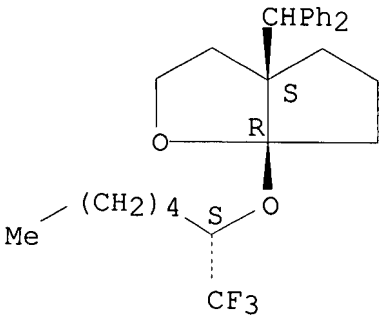
RN 461025-54-7 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-(trifluoromethyl)pentyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



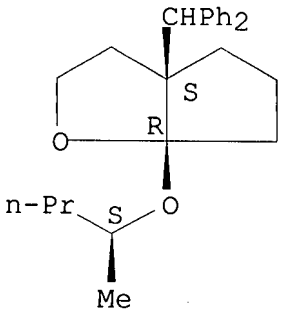
RN 461025-55-8 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-(trifluoromethyl)hexyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



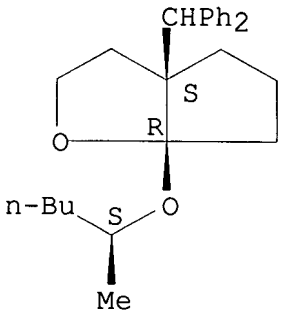
RN 461025-56-9 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1S)-1-methylbutoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



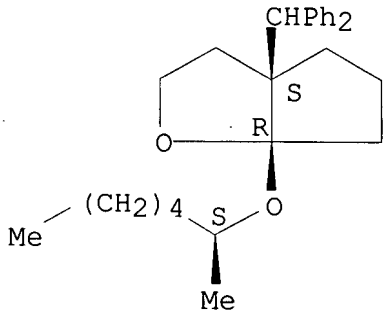
RN 461025-57-0 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-methylpentyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



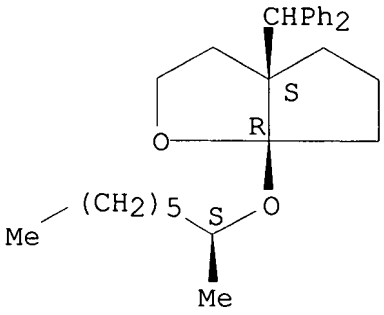
RN 461025-58-1 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-methylhexyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



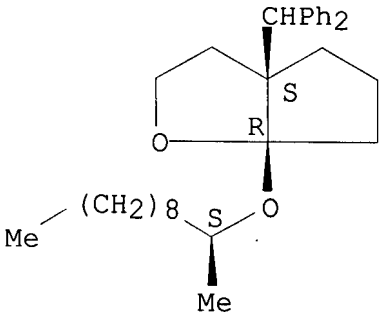
RN 461025-59-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-methylheptyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



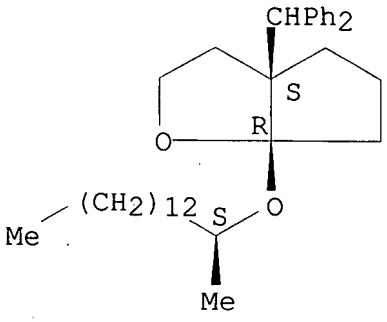
RN 461025-60-5 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-methyldecyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



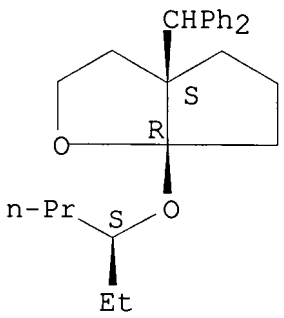
RN 461025-61-6 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1S)-1-methyltetradecyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 461025-62-7 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[(1S)-1-ethylbutoxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

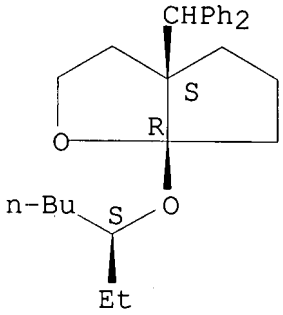
Absolute stereochemistry.



RN 461025-63-8 CAPLUS

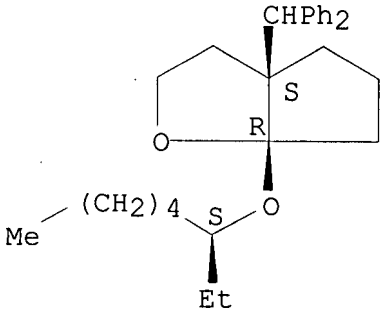
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1S)-1-ethylpentyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



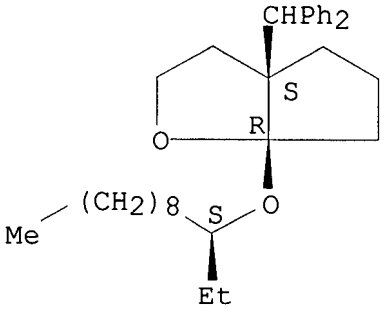
RN 461025-64-9 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1S)-1-ethylhexyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



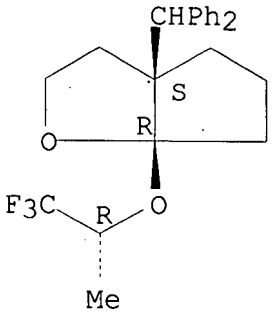
RN 461025-65-0 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)-6a-[[(1S)-1-ethyldecyl]oxy]hexahydro-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



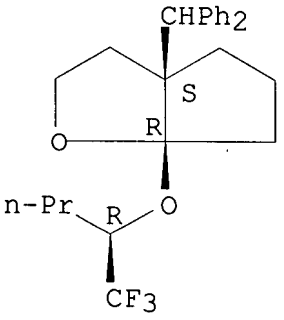
RN 461025-66-1 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1R)-2,2,2-trifluoro-1-methylethoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



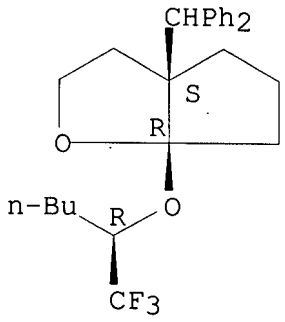
RN 461025-67-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[(1R)-1-(trifluoromethyl)butoxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



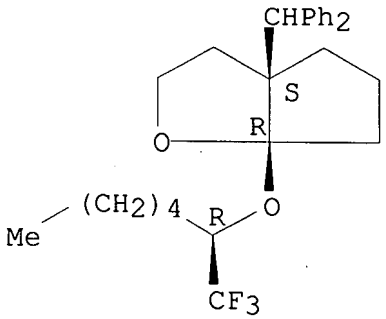
RN 461025-68-3 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-(trifluoromethyl)pentyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



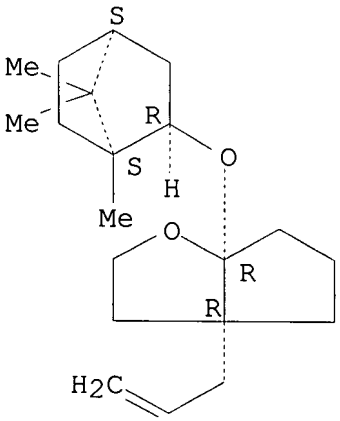
RN 461025-69-4 CAPLUS
CN 2H-Cyclopenta[b]furan, 3a-(diphenylmethyl)hexahydro-6a-[[(1R)-1-(trifluoromethyl)hexyl]oxy]-, (3aS,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



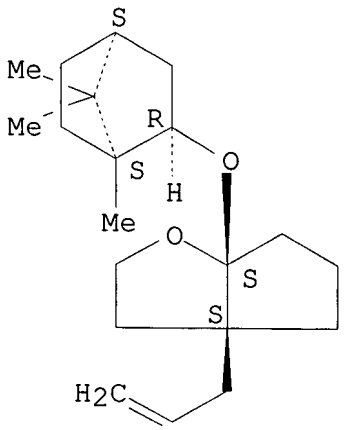
RN 461025-87-6 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-3a-(2-propenyl)-6a-[[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl]oxy]-, (3aR,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 461031-95-8 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-3a-(2-propenyl)-6a-[[(1S,2R,4S)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl]oxy]-, (3aS,6aS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IC ICM C07B057-00
ICS C07C031-12; C07C031-125; C07C031-38; C07C029-74; C07M007-00
CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 21, 80
IT 67-56-1, Methanol, reactions 75-36-5, Acetyl chloride 80-97-7
100-58-3, Phenylmagnesium bromide 123-96-6, 2-Octanol 360-33-8
374-01-6 433-24-9 464-45-9 543-49-7, 2-Heptanol 589-82-2,
3-Heptanol 589-98-0, 3-Octanol 623-37-0, 3-Hexanol 626-93-7,
2-Hexanol 1653-30-1, 2-Undecanol 1653-34-5, 2-Pentadecanol
5978-70-1
6032-29-7, 2-Pentanol 10203-30-2, 3-Dodecanol 80768-53-2
461025-78-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving
agents and method for optical resolution of alcs. using said agents)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving
agents and method for optical resolution of alcs. using said agents)

461025-86-5P 461025-87-6P 461031-95-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bicyclooxaoctanes and bicyclooxaoctenes as optical resolving
agents and method for optical resolution of alcs. using said agents)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

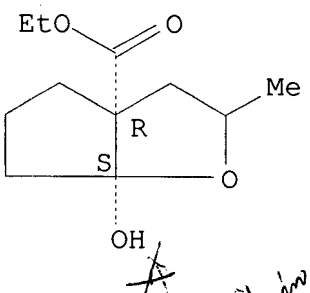
L5 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:526623 CAPLUS
DOCUMENT NUMBER: 137:384437
TITLE: Manganese(III) acetate-mediated alkylation of 1,3-dicarbonyls to form tricarbonyl compounds bearing a quaternary carbon centre
AUTHOR(S): Bar, Gregory; Parsons, Andrew F.; Thomas, C. Barry
CORPORATE SOURCE: Department of Chemistry, University of York, Heslington, YO10 5DD, UK
SOURCE: Synlett (2002), (7), 1069-1072
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:384437

AB 1,3-Dicarbonyl compds. including Et 2-methylacetoacetate can be efficiently alkylated with enol ethers or enol esters in the presence of manganese(III) acetate. These intermol. radical addition reactions can be used to form sterically congested quaternary carbon centers in excellent yield (81-97%). For example, Et 2-methylacetoacetate was reacted with Bu vinyl ether in the presence of manganese(III) acetate dihydrate and copper(II) acetate monohydrate to give 92% Et 2-methyl-2-(oxoethyl)acetoacetate.

IT 475661-17-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 475661-17-7 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-carboxylic acid, hexahydro-6a-hydroxy-2-methyl-, ethyl ester, (3aR,6aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 21-2 (General Organic Chemistry)
IT 24810-58-0P 111400-47-6P 111400-48-7P 287724-55-4P 475661-08-6P
475661-09-7P 475661-11-1P 475661-12-2P 475661-13-3P
475661-14-4P
475661-15-5P 475661-16-6P 475661-17-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR
THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L5 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:527053 CAPLUS
DOCUMENT NUMBER: 135:272585
TITLE: The addition of 2-oxido-2-cyclopenten-1-ylium to
some
olefins and dienes in 2,2,2-trifluoroethanol
AUTHOR(S): Leitich, Johannes; Heise, Ingeborg
CORPORATE SOURCE: Max-Planck-Institut fur Strahlenchemie, Mulheim a.
d.
Ruhr, 45470, Germany
SOURCE: European Journal of Organic Chemistry (2001
), (14), 2707-2718
CODEN: EJOCFK; ISSN: 1434-193X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:272585
AB The title reaction has been studied with 2-methoxypropene,
(E)-cyclooctene, ethoxyethene, 1,3-cyclopentadiene, 3-
methylenecyclohexene, styrene and isoprene as the olefinic substrates.
This sequence is one of decreasing reactivity of the substrates towards
2-oxido-2-cyclopenten-1-ylium (1) if [4 + 3] cycloaddn. (the prevailing
reaction in the case of cyclopentadiene and isoprene) is ignored. This
reactivity encompasses: (a) the formation of intermediate 1,5-dipoles,
which in the majority of cases give rise to a multitude of products
including many of higher mol. mass, and (b) two types of ene reactions,
dubbed "ene-type 1" and "ene-type 2". Type 1, in which the migrating
hydrogen atom is abstracted from 1, is ubiquitous (except with
2-methoxypropene) but is always a minor reaction; type 2, in which the
migrating hydrogen atom is transferred to 1, was encountered only in
the
cases of 3-methylenecyclohexene, in which it is a major reaction path,
and
isoprene. Both types were found to be slightly concerted. In this
context, we observed an effect which we have dubbed "dipolar diversion
of a
concerted reaction". In general, those substrates incapable of
forming [4
+ 3] cycloadducts gave complicated mixts., with the exception of two

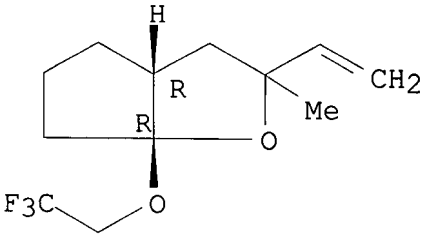
compds., which were found to give one predominant product with 1. The first of these is the trans-fixed 1,3-diene 3-methylenecyclohexene, which gave the ene-type 2 adduct, while the second is the most nucleophilic substrate, 2-methoxypropene, which gave a mixture of four adducts (two pairs of epimers), all of which gave a diketone on hydrolysis.

IT 364058-27-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(the addition of 2-oxido-2-cyclopenten-1-ylium to some olefins and dienes in 2,2,2-trifluoroethanol)

RN 364058-27-5 CAPLUS

CN 2H-Cyclopenta[b]furan, 2-ethenylhexahydro-2-methyl-6a-(2,2,2-trifluoroethoxy)-, (3aR,6aR)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 22-4 (Physical Organic Chemistry)

RL: SPN (Synthetic preparation); PREP (Preparation)
(the addn. of 2-oxido-2-cyclopenten-1-ylium to some olefins and dienes in 2,2,2-trifluoroethanol)

REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:307641 CAPLUS

DOCUMENT NUMBER: 129:27868

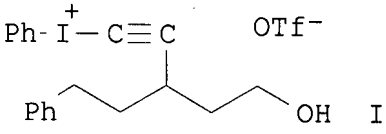
TITLE: Intramolecular bicyclization of hydroxypentynyliodonium triflate derivatives to furnish cyclopentannelated tetrahydrofurans: the first examples of cyclopentene formation following alkoxide addition to alkynyliodonium salts

AUTHOR(S): Feldman, Ken S.; Bruendl, Michelle M.

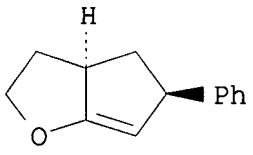
CORPORATE SOURCE: Chem. Dep., Pennsylvania State Univ., University Park,

PA, 16802, USA
SOURCE: Tetrahedron Letters (1998), 39(19), 2911-2914
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:27868

GI



I



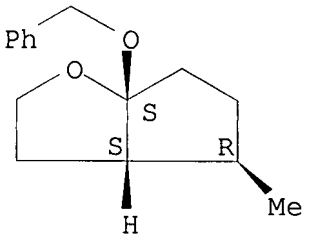
II

AB Several hydroxyalkynyliodonium triflates such as I can be cyclized with KNTMS2 to provide cyclopentannelated THF derivs. such as II in modest to good yields. The diastereoselectivity of C-H insertion by the intermediate carbene is better than that observed with the corresponding tosylamidoalkynyliodonium triflates. Product lability and an electronic mismatch between the alkoxide nucleophile and iodonium electrophile likely contribute to the modest yields.

IT 208046-70-2P 208046-72-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclopenteno- and cyclopentanotetrahydrofurans by diastereoselective cyclization of hydroxypentylalkynyliodonium triflates)

RN 208046-70-2 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-4-methyl-6a-(phenylmethoxy)-, (3aR,4S,6aR)-rel- (9CI) (CA INDEX NAME)

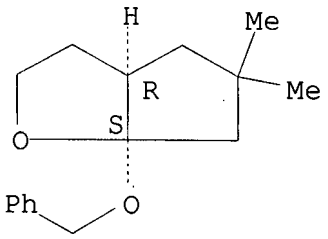
Relative stereochemistry.



RN 208046-72-4 CAPLUS

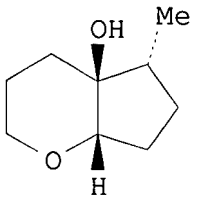
CN 2H-Cyclopenta[b]furan, hexahydro-5,5-dimethyl-6a-(phenylmethoxy)-, (3aR,6aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
IT 208046-61-1P 208046-70-2P 208046-71-3P 208046-72-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of cyclopenteno- and cyclopentanotetrahydrofurans by diastereoselective cyclization of hydroxypentylalkynyliodonium triflates)
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L5 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:253956 CAPLUS
DOCUMENT NUMBER: 126:293230
TITLE: Sequenced Reactions with Samarium(II) Iodide. Sequential Nucleophilic Acyl Substitution/Ketyl Olefin
Coupling Reactions for the Preparation of Oxygen Heterocycles
AUTHOR(S): Molander, Gary A.; Harris, Christina R.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, University
of Colorado, Boulder, CO, 80309-0215, USA
SOURCE: Journal of Organic Chemistry (1997), 62(9), 2944-2956
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 126:293230
GI



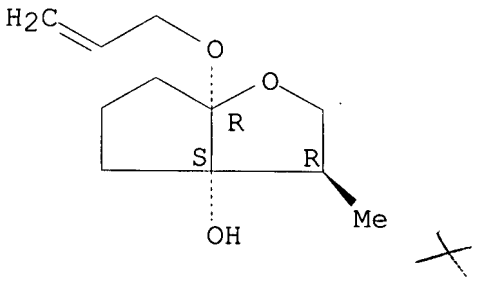
I

AB Samarium(II) iodide has been employed to promote a sequential intramol. nucleophilic acyl substitution/intramol. ketyl olefin coupling cyclization sequence to provide bicyclic, tricyclic, and spiro-fused oxygen heterocycles in excellent yield and with high diastereoselectivity. E.g., treating EtO2CCH(OCH2CH2CH2I)CH2CH2CH:CH2 with SmI2 in THF/HMPA gave 61% I as a single diastereomeric product.

IT 189046-68-2P 189047-29-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxygen heterocycles by a samarium iodide promoted intramol. nucleophilic acyl substitution/intramol. ketyl olefin coupling cyclization sequence)

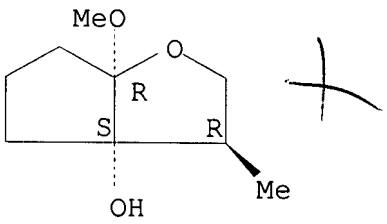
RN 189046-68-2 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-ol, hexahydro-3-methyl-6a-(2-propenyloxy)-, (3α,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 189047-29-8 CAPLUS
CN 3aH-Cyclopenta[b]furan-3a-ol, hexahydro-6a-methoxy-3-methyl-, (3α,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 27-1 (Heterocyclic Compounds (One Hetero Atom))
IT 189046-57-9P 189046-59-1P 189046-61-5P 189046-62-6P
189046-64-8P
189046-68-2P 189046-72-8P 189046-74-0P 189046-77-3P
189046-82-0P 189046-84-2P 189046-86-4P 189046-91-1P
189047-24-3P
189047-27-6P 189047-28-7P 189047-29-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of oxygen heterocycles by a samarium iodide promoted intramol.
nucleophilic acyl substitution/intramol. ketyl olefin coupling cyclization sequence)
REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

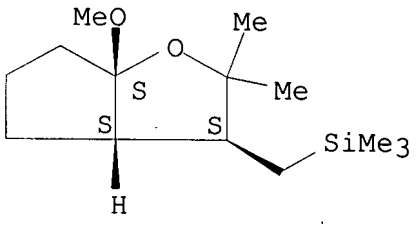
L5 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1996:535181 CAPLUS
DOCUMENT NUMBER: 125:300172
TITLE: Variations on radical cascades of vinyl radicals generated from (bromomethyl)dimethylsilyl propargyl ethers
AUTHOR(S): Fensterbank, Louis; Dhimane, Anne-Lise; Wu, Sashuang;
Lacote, Emmanuel; Bogen, Stephane; Malacria, Max
CORPORATE SOURCE: Lab. Chim. Org. Synthese, Univ. P. et M. Curie, Paris,
75252, Fr.
SOURCE: Tetrahedron (1996), 52(35), 11405-11420
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vinyl radicals generated from (bromomethyl)dimethylsilyl propargyl ethers
have been efficiently engaged in cascades of radical cyclizations. Through the enchainment of 5-exo-dig-5-(π-endo)-exo-trig-6-endo-trig or
5-exo-dig-5-(π-endo)-exo-trig-6-exo-trig radical processes, hydrindene and a steroid skeleton could be assembled. Appending on the alkyne a suitable chain bearing a dioxolane for 1,5-radical translocations proved

also very rewarding since a very diastereoselective access to cyclopentanone derivs. could be devised.

IT 182567-18-6P 182567-19-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and radical cyclization of (bromomethyl)dimethylsilyl propargyl ethers)

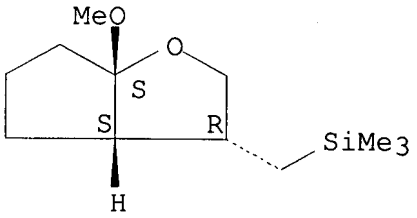
RN 182567-18-6 CAPLUS
CN Silane, [(hexahydro-6a-methoxy-2,2-dimethyl-2H-cyclopenta[b]furan-3-yl)methyl]trimethyl-, (3α,3aα,6aα)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 182567-19-7 CAPLUS
CN Silane, [(hexahydro-6a-methoxy-2H-cyclopenta[b]furan-3-yl)methyl]trimethyl-, (3α,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



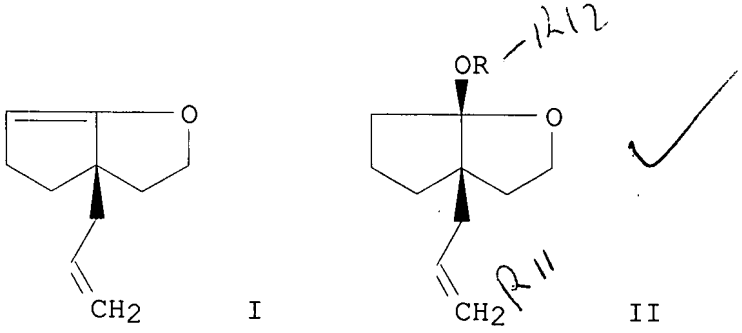
CC 21-2 (General Organic Chemistry)

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and radical cyclization of (bromomethyl)dimethylsilyl propargyl ethers)

L5 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:141525 CAPLUS
DOCUMENT NUMBER: 122:160385
TITLE: A new alkenyl ether giving acetal with stereospecific manner

AUTHOR(S): Nemoto, Hisao
CORPORATE SOURCE: Dep. Applied Molecular Sci., Okazaki Inst. Molecular Science, Okazaki, Aiichi, 444, Japan
SOURCE: Tetrahedron Letters (1994), 35(42), 7785-8
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:160385

GI



I II

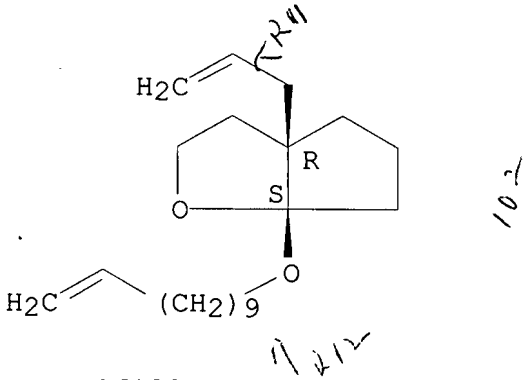
AB Acetalization of the alkenyl ether (±)-3,3a,4,5-tetrahydro-3a-(2-propenyl)-2H-cyclopenta[b]furan [(±)-I] gave stereospecifically cis-(±)-hexahydro-6a-methoxy-3a-(2-propenyl)-2H-cyclopenta[b]furan; the stereochem. was proven by x-ray anal.

IT 161394-51-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(deprotection of 6a-(alkoxy)benzo[b]furan)

RN 161394-51-0 CAPLUS

CN 2H-Cyclopenta[b]furan, hexahydro-3a-(2-propenyl)-6a-(10-undecenyloxy)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

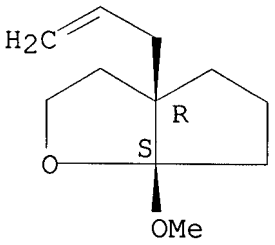


IT 161394-44-1P 161394-45-2P 161394-46-3P
161394-47-4P 161394-48-5P
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of 6a-(alkoxy)benzo[b]furan by stereoselective acetalization of
3a-(propenyl)cyclopenta[b]furan)

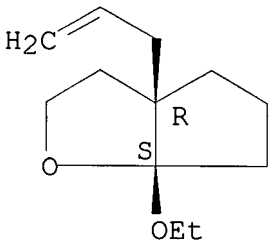
RN 161394-44-1 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-6a-methoxy-3a-(2-propenyl)-, (3aR,6aS)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



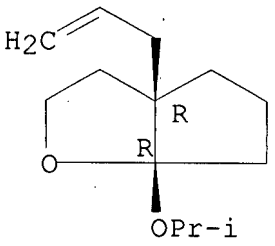
RN 161394-45-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 6a-ethoxyhexahydro-3a-(2-propenyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 161394-46-3 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-6a-(1-methylethoxy)-3a-(2-propenyl)-, cis- (9CI) (CA INDEX NAME)

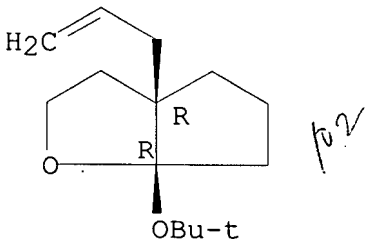
Relative stereochemistry.



RN 161394-47-4 CAPLUS

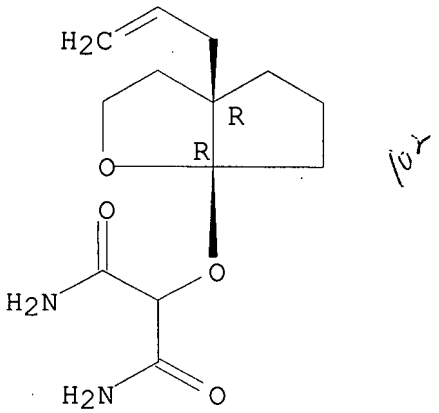
CN 2H-Cyclopenta[b]furan,
6a-(1,1-dimethylethoxy)hexahydro-3a-(2-propenyl)-,
cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 161394-48-5 CAPLUS
CN Propanediamide,
2-[[hexahydro-3a-(2-propenyl)-6aH-cyclopenta[b]furan-6a-
yl]oxy]-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



CC 27-6 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 75
IT 161394-51-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(deprotection of 6a-(alkoxy)benzo[b]furan)
IT 161394-44-1P 161394-45-2P 161394-46-3P
161394-47-4P 161394-48-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of 6a-(alkoxy)benzo[b]furan by stereoselective
acetalization of
3a-(propenyl)cyclopenta[b]furan)

L5 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:270951 CAPLUS

DOCUMENT NUMBER: 120:270951
TITLE: Total synthesis of (+)-13-ethyl-3-methoxygona-1,3,5,9(11)-tetran-17-one via the tandem Claisen-ene strategy
AUTHOR(S): Groen-Piotrowska, E. M.; Groen, M. B.
CORPORATE SOURCE: Organon Sci. Dev. Group, Oss, 5340 BH, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1993), 112(12), 627-34
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 120:270951
GI

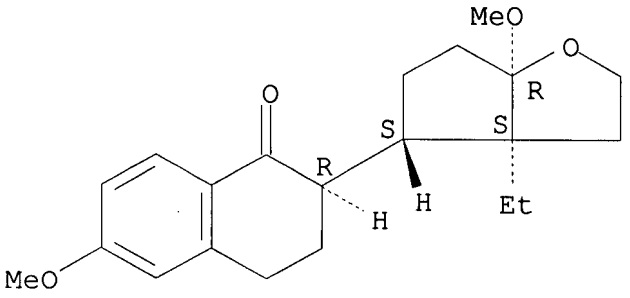
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A total synthesis of the title compound I, a potential precursor of the progestagens desogestrel and 3-ketodesogestrel, is described. The backbone of the steroid was assembled by condensation of 1,2-dihydronaphthalene II with 6-nonen-2-ynoic acid III (TBDMS = tert-butyldimethylsilyl) and subsequent Claisen rearrangement of the resulting enol ether to give disecosteroid IV. Heating of IV at 170° gave a 1:1 mixture of 9,11-secosteroids V and its 13α epimer. The 13β-epimer V was converted into 9,11-secogona-1,3,5(10)-triene-9,17-dione VI (X = Br), which was treated with triphenylphosphine under high pressure conditions (12 kbar, 55°) to give the corresponding phosphonium salt VI (X = P+Ph3 Br-) (VII). The intramol. Wittig reaction of VII proceeded with epimerization at C-8 to give exclusively the 8α epimer of I, which underwent isomerization upon treatment with acid to the title compound I.

IT 154619-42-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and deacetalization-bromination of)

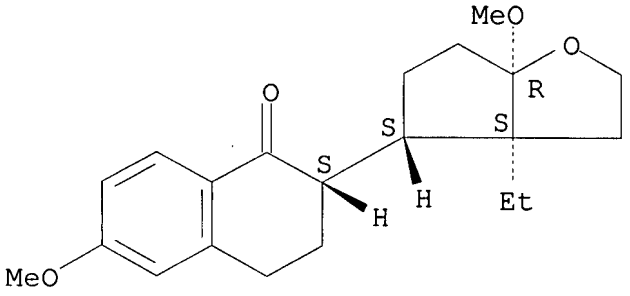
RN 154619-42-8 CAPLUS
CN 1(2H)-Naphthalenone, 2-(3a-ethylhexahydro-6a-methoxy-2H-cyclopenta[b]furan-4-yl)-3,4-dihydro-6-methoxy-, [3aS-[3aα,4α(S*),6aα]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 154726-64-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and isomerization of)
RN 154726-64-4 CAPLUS
CN 1(2H)-Naphthalenone,
2-(3a-ethylhexahydro-6a-methoxy-2H-cyclopenta[b]furan-4-yl)-3,4-dihydro-6-methoxy-, [3aS-[3aα,4α(R*),6aα]]-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



CC 32-2 (Steroids)
IT 154619-42-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and deacetalization-bromination of)
IT 154726-64-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and isomerization of)

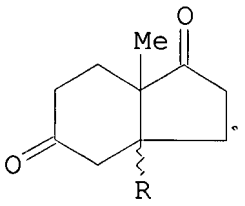
L5 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1991:6923 CAPLUS
DOCUMENT NUMBER: 114:6923
TITLE: Baeyer-Villiger oxidation of (3aS and

3aR,7aS)-1,2,3a,4,5,6,7,7a-octahydro-7a-methyl[1H]indene-1,5-diones. Synthesis of a chiral synthon for total synthesis of 14β-estrone

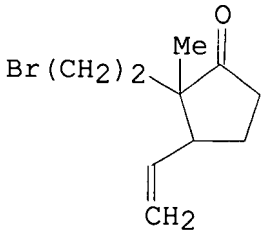
AUTHOR(S): Daniewski, Andrzej Robert; Kiegiel, Jaroslaw
CORPORATE SOURCE: Inst. Org. Chem., Pol. Acad. Sci., Warsaw, 01-224, Pol.

SOURCE: Bulletin of the Polish Academy of Sciences, Chemistry
(1989), 37(7-8), 277-81
CODEN: BPACEQ; ISSN: 0239-7285
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 114:6923

GI



I

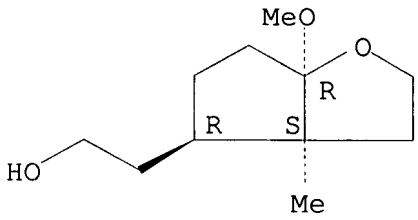


II

AB Regioselectivity of Baeyer-Villiger oxidation of the title compds. I (R = β-H, α-H) depends on acidity of the reaction medium. Easily accessible I (R = β-H) was transformed into synthon II, which can be used for total synthesis of 14β-estrone.

IT 130467-39-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of)
RN 130467-39-9 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ethanol, hexahydro-6a-methoxy-3a-methyl-, [3aS-(3aα,4β,6aα)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

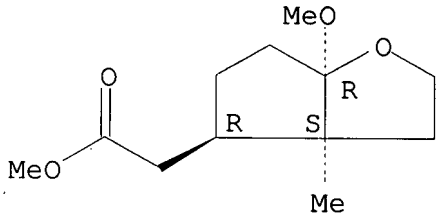


IT 130467-38-8P

Sub. alkyl 1,2 1-4

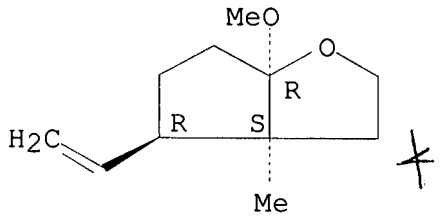
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydride reduction of)
RN 130467-38-8 CAPLUS
CN 2H-Cyclopenta[b]furan-4-acetic acid, hexahydro-6a-methoxy-3a-methyl-, methyl ester, [3aS-(3aα,4β,6aα)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 130467-40-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and ring cleavage of)
RN 130467-40-2 CAPLUS
CN 2H-Cyclopenta[b]furan, 4-ethenylhexahydro-6a-methoxy-3a-methyl-, [3aS-(3aα,4β,6aα)]- (9CI) (CA INDEX NAME)

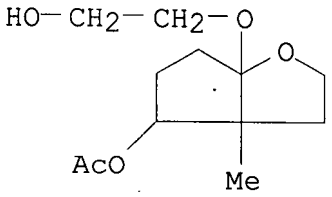
Absolute stereochemistry.



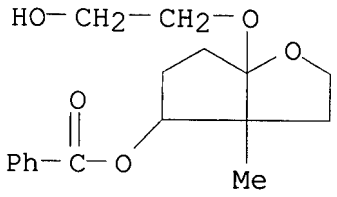
CC 32-3 (Steroids)
IT 130467-39-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and dehydration of)
IT 130467-38-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydride reduction of)
IT 130467-40-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(preparation and ring cleavage of)

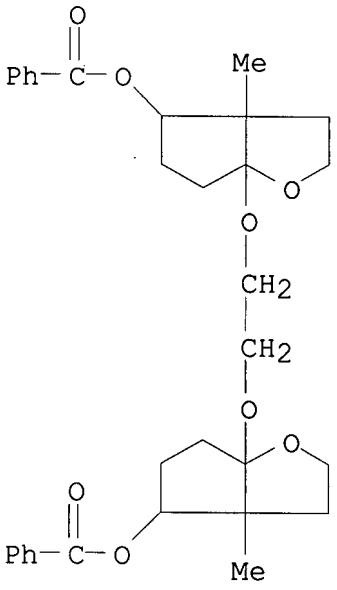
L5 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:594134 CAPLUS
DOCUMENT NUMBER: 111:194134
TITLE: Synthesis of 2-[5,5-(ethylenedioxy)-1-methylcyclopent-2-en-1-yl]ethanol, and some 2H-cyclopenta[b]furan derivatives formed by intramolecular displacement reactions
AUTHOR(S): Campbell, Michael; Collins, David J.; James, Alison M.
CORPORATE SOURCE: Chem. Dep., Monash Univ., Clayton, 3168, Australia
SOURCE: Australian Journal of Chemistry (1989), 42(1), 17-35
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 111:194134
AB Exchange dioxolanation of 2-methyl-2-(prop-2-enyl)cyclopentane-1,3-dione gave 3,3-(ethylenedioxy)-2-methyl-2-(prop-2-enyl)cyclopentan-1-one, which, upon reduction and esterification, afforded the epimeric 3,3-(ethylenedioxy)-2-methyl-2-(prop-2-enyl)cyclopent-1-yl benzoates (I). Oxidative cleavage of the terminal double bond in I, followed by NaBH4 reduction yielded 3,3-(ethylenedioxy)-2-(2-hydroxyethyl)-2-methylcyclopent-1-yl benzoate (II) which underwent acid-catalyzed rearrangement to 6a-(2-hydroxyethoxy)-3a-methylhexahydrocyclopenta[b]furan-4-yl benzoate. Flash vacuum pyrolysis of the tert-butyldimethylsilyl ether derived from the hydroxy acetal II afforded 3-[2-(tert-butyldimethylsilyloxy)ethyl]-4,4-(ethylenedioxy)-3-methylcyclopent-1-ene which upon selective cleavage of the silyl ether group gave title compound (III). Reaction of the mesylate of III with LiBr or LiI in THF at 50-5° for several h yielded some of the corresponding 3-(2-haloethyl) compds., but gave mainly the rearranged 6a-(2-haloethoxy)-3a-methyl-3,3a,6,6a-tetrahydro-2H-cyclopenta[b]furans.
IT 123434-61-7P 123434-86-6P 123434-87-7P 123485-37-0P 123485-38-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)
RN 123434-61-7 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ol, hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-, 4-acetate, (3aα,4β,6aα)- (9CI) (CA INDEX NAME)



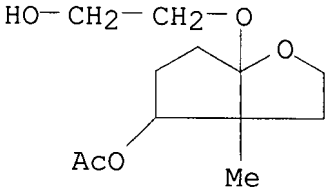
RN 123434-86-6 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ol, hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-, 4-benzoate, (3aα,4α,6aα)- (9CI) (CA INDEX NAME)



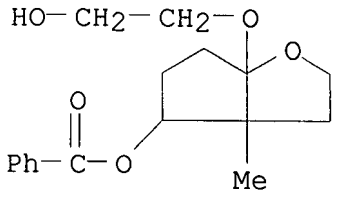
RN 123434-87-7 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ol, 6a,6'a-[1,2-ethanediylbis(oxy)]bis[hexahydro-3a-methyl-, dibenzoate (9CI) (CA INDEX NAME)



RN 123485-37-0 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ol, hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-, 4-acetate, (3aα,4α,6aα)- (9CI) (CA INDEX NAME)



RN 123485-38-1 CAPLUS
CN 2H-Cyclopenta[b]furan-4-ol, hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-, 4-benzoate, (3aα,4β,6aα)- (9CI) (CA INDEX NAME)



CC 24-4 (Alicyclic Compounds)
Section cross-reference(s): 28, 32
IT 123434-61-7P 123434-62-8P 123434-63-9P 123434-64-0P
123434-68-4P 123434-72-0P 123434-78-6P 123434-79-7P
123434-81-1P
123434-86-6P 123434-87-7P 123434-88-8P
123485-37-0P 123485-38-1P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)

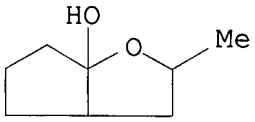
L5 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:477279 CAPLUS
DOCUMENT NUMBER: 111:77279
TITLE: Reactivity of unsaturated ketones and oxiranes in the
iodocyclization reaction
AUTHOR(S): Kupchik, I. P.; Koryak, E. B.; Gevaza, Yu. I.; Staninets, V. I.
CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR
SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition) (1988), 54(11), 1180-3
CODEN: UKZHAU; ISSN: 0041-6045
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 111:77279
AB Rate consts. were determined for the iodocyclization of the title compds. in
aqueous NaHCO3 or phosphate buffer. The reactivities decreased in the following order: 2-(2-methyl-2-butenyl)cyclohexanone > 2-methyl-2-hepten-6-one > 2-allylcyclohexanone > 2-allyl-2-hydroxy-4-pentenol > 1-hexen-5-one > 2-phenyl-2-hydroxy-4-pentenol >

2-allylcyclopentanone ≈ 1,2-epoxy-2-phenyl-4-pentene > 1,2-epoxy-2-allyl-4-pentene.

IT 73859-59-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 73859-59-3 CAPLUS

CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-2-methyl- (9CI) (CA INDEX NAME)



CC 22-5 (Physical Organic Chemistry)

IT 73859-59-3P 90201-25-5P 121949-38-0P 121949-39-1P 121949-40-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:221943 CAPLUS

DOCUMENT NUMBER: 108:221943

TITLE: A new route to a chiral synthon for the total synthesis of estrone

AUTHOR(S): Daniewski, Andrzej Robert; Kiegiel, Jaroslaw

CORPORATE SOURCE: Inst. Org. Chem., Pol. Acad. Sci., Warsaw, PL-01-224, Pol.

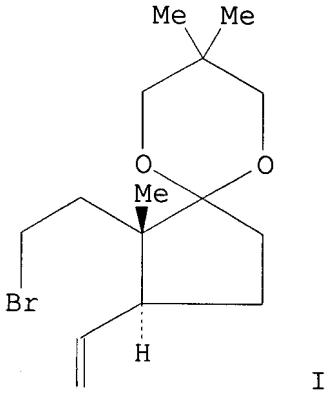
SOURCE: Synthesis (1987), (8), 705-8
CODEN: SYNTBF; ISSN: 0039-7881

DOCUMENT TYPE: Journal

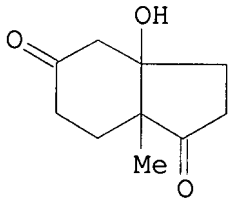
LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:221943

GI



I



II

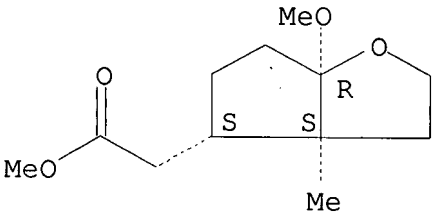
AB An improved synthesis of chiral synthon C (I) for estrone from chiral perhydroindandione II was described.

IT 114611-49-3P 114611-50-6P 114611-51-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate in improved synthesis of chiral estron
synthon)

RN 114611-49-3 CAPLUS

CN 2H-Cyclopenta[b]furan-4-acetic acid, hexahydro-6a-methoxy-3a-methyl-, methyl ester, [3aS-(3aα,4α,6aα)]- (9CI) (CA INDEX NAME)

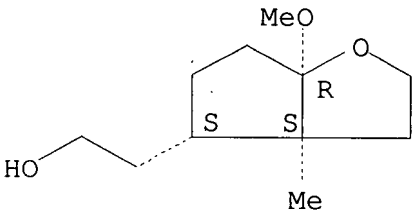
Absolute stereochemistry.



RN 114611-50-6 CAPLUS

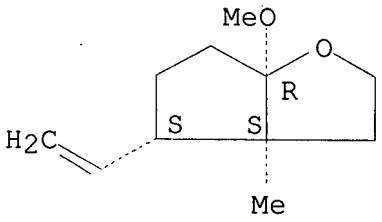
CN 2H-Cyclopenta[b]furan-4-ethanol, hexahydro-6a-methoxy-3a-methyl-, [3aS-(3aα,4α,6aα)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 114611-51-7 CAPLUS
CN 2H-Cyclopenta[b]furan, 4-ethenylhexahydro-6a-methoxy-3a-methyl-, [3aS-(3aα,4α,6aα)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

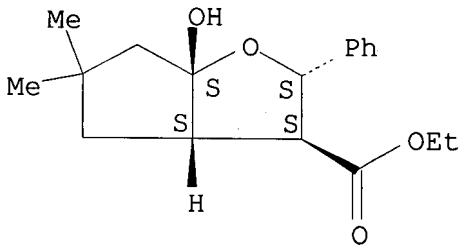


CC 32-3 (Steroids)
IT 114611-43-7P 114611-46-0P 114611-48-2P 114611-49-3P
114611-50-6P 114611-51-7P 114611-52-8P 114673-85-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as intermediate in improved synthesis of chiral estron
synthon)

L5 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:66797 CAPLUS
DOCUMENT NUMBER: 106:66797
TITLE: Regiospecific generation and alkylation of γ-oxo α-ester enolates. Application to the synthesis of polycyclopentanoids
AUTHOR(S): Marino, Joseph P.; Laborde, Edgardo
CORPORATE SOURCE: Dep. Chem., Univ. Michigan, Ann Arbor, MI, 48109, USA
SOURCE: Journal of Organic Chemistry (1987), 52(1), 1-10
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 106:66797
AB A new strategy for [3 + 2] annulation utilizes the combination of a C3 synthon in the form of a γ-oxo α-ester enolate with a C2 Michael acceptor. The enolate synthon is derived from the fluoride-induced desilylation of 2-(silyloxy)cyclopropanecarboxylates. This new methodol. has been applied to the construction of the bicyclo[3.3.0]octane and the tricyclo[6.3.0.02,6]undecane ring systems, the latter by using a reiterative process.
IT 105619-68-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 105619-68-9 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-hydroxy-5,5-dimethyl-

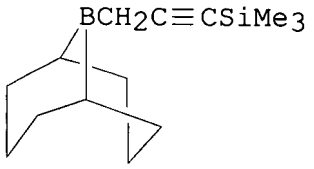
2-phenyl-, ethyl ester, (2α,3β,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

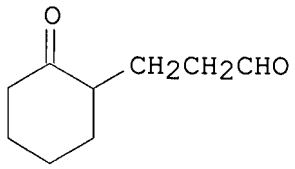


CC 24-8 (Alicyclic Compounds)
IT 50891-56-0P 94499-68-0P 94499-69-1P 94499-72-6P 94499-73-7P
94499-74-8P 94499-75-9P 94499-83-9P 105576-31-6P
105619-68-9P 105619-69-0P 105619-70-3P 105619-71-4P
105619-72-5P 105619-73-6P 105619-75-8P 105619-76-9P
105619-77-0P
105619-80-5P 105619-81-6P 105662-70-2P 105662-74-6P
105662-75-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

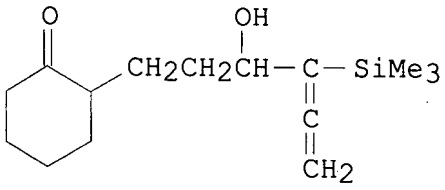
L5 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:437524 CAPLUS
DOCUMENT NUMBER: 103:37524
TITLE: Relative reactivities of representative aldehydes and
ketones toward trimethylsilyl-substituted propargylic
boranes
AUTHOR(S): Wang, Kung K.; Liu, Chin
CORPORATE SOURCE: Dep. Chem., West Virginia Univ., Morgantown, WV, 26506, USA
SOURCE: Journal of Organic Chemistry (1985), 50(14), 2578-80
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 103:37524
GI



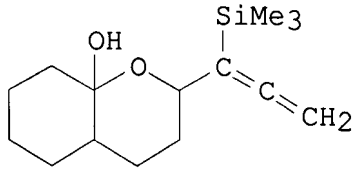
I



II



III



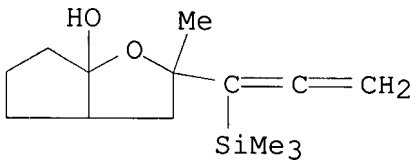
IV

AB The relative reactivities of aldehyde and ketones toward triethylsilyl-substituted propargylic boranes were determined by competitive expts. Aldehydes were much more reactive than ketones; cyclohexanone and Me ketones showed higher reactivities than other ketones; and carboxylate esters exhibited no significant reactivity. These differences in reactivity allowed selective reaction of an aldehyde group in the presence of a keto group; an Ac group in the presence of a cyclopentanone group; and a keto group in the presence of a carboxylate group. Thus, reaction of I with II followed by treatment with NaOH-H2O2 gave III, which tautomerized to IV.

IT 96503-45-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

RN 96503-45-6 CAPLUS

CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-2-methyl-2-[1-(trimethylsilyl)-1,2-propadienyl]- (9CI) (CA INDEX NAME)

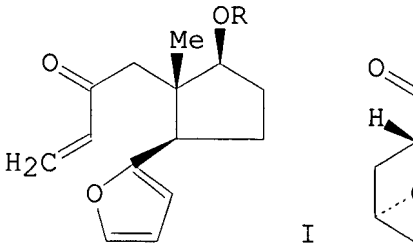


CC 29-4 (Organometallic and Organometalloidal Compounds)

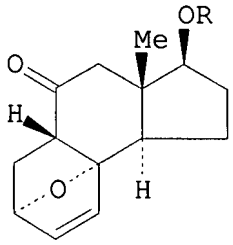
IT 96503-44-5P 96503-45-6P 96503-47-8P 96503-48-9P 96503-49-0P 96503-50-3P 96503-51-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

L5 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1985:167001 CAPLUS
DOCUMENT NUMBER: 102:167001
TITLE: Intramolecular Diels-Alder reaction with furan-diene.

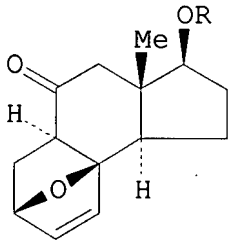
1. A novel entry to the BCD-ring system of 11-oxo steroids
AUTHOR(S): Van Royen, Luc A.; Mijngheer, Roelant; De Clercq, Pierre J.
CORPORATE SOURCE: Lab. Org. Synth., State Univ. Ghent, Ghent, B-9000, Belg.
SOURCE: Bulletin des Societes Chimiques Belges (1984), 93(11), 1019-36
CODEN: BSCBAG; ISSN: 0037-9646
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



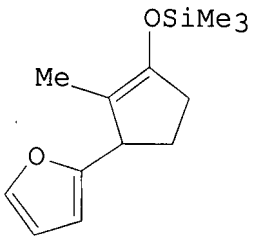
I



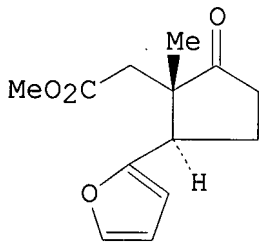
II



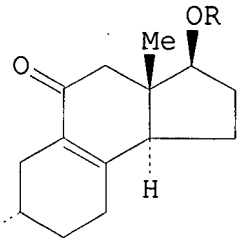
III



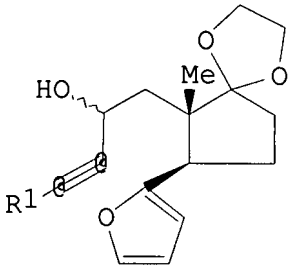
IV



V



VI



VII

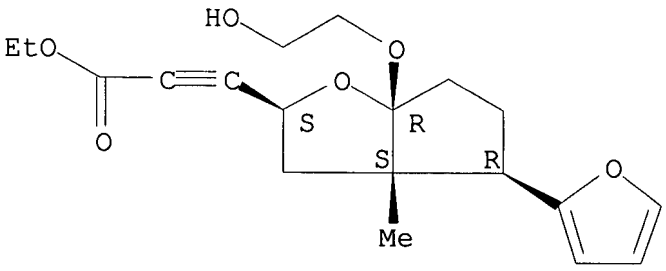
AB The steroidal BCD-ring system was prepared by intramol. Diels-Alder reaction
of cyclopentylbutenone I (R = SiMe2CMe3) to give isomeric

epoxycyclopentanaphthalenes II and III by kinetic and thermodn. control,
resp. I was prepared from furylcyclopentene IV via regioselective-stereoselective alkylation by BrCH2CO2Me to give the cyclopentaneacetate
V. The dihydro derivative of II underwent ring cleavage in MeOH containing NaOMe
to give the de-A-steroid VI without C-14 epimerization. Other furylcyclopentanes, e.g., VII (R1 = Bu, CO2Et), were prepared and their Diels-Alder cyclizations studied.

IT 95852-76-9P 95910-77-3P 95910-78-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

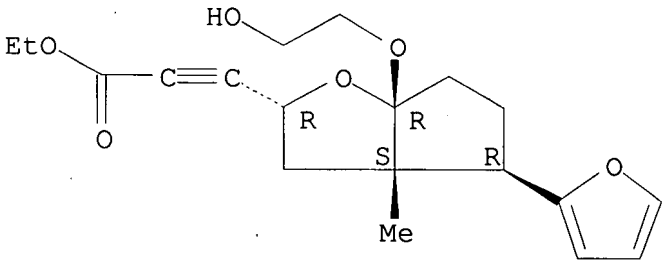
RN 95852-76-9 CAPLUS
CN 2-Propynoic acid,
3-[4-(2-furanyl)hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-2H-cyclopenta[b]furan-2-yl]-, ethyl ester, (2α,3aα,4α,6aα)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



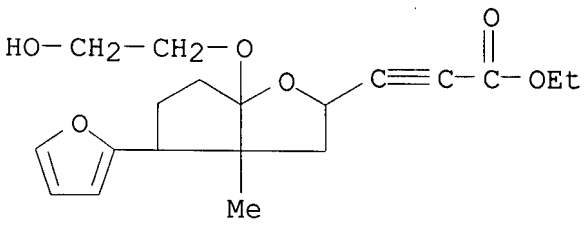
RN 95910-77-3 CAPLUS
CN 2-Propynoic acid,
3-[4-(2-furanyl)hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-2H-cyclopenta[b]furan-2-yl]-, ethyl ester, (2α,3aβ,4β,6a.beta.)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



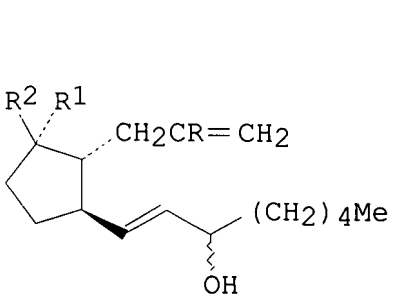
RN 95910-78-4 CAPLUS
CN 2-Propynoic acid,
3-[4-(2-furanyl)hexahydro-6a-(2-hydroxyethoxy)-3a-methyl-

2H-cyclopenta[b]furan-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)

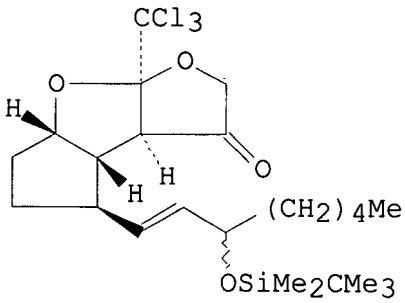


CC 32-3 (Steroids)
Section cross-reference(s): 27
IT 83662-18-4P 87530-46-9P 95852-74-7P 95852-76-9P
95852-78-1P 95852-79-2P 95852-81-6P 95852-82-7P 95852-83-8P
95852-86-1P 95852-87-2P 95852-89-4P 95852-99-6P 95910-75-1P
95910-77-3P 95910-78-4P 95910-93-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

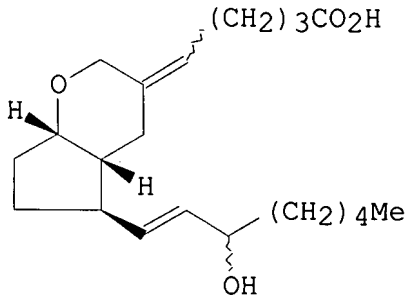
L5 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:582043 CAPLUS
DOCUMENT NUMBER: 97:182043
TITLE: Synthetic approaches to 11-deoxyhomoprostacyclin analogs
AUTHOR(S): Dixon, Andrew J.; Taylor, Richard J. K.; Newton, Roger F.; Wadsworth, Alan H.; Klinkert, Graham
CORPORATE SOURCE: Chem. Dep., Open Univ., Milton Keynes, MK7 6AA, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1982), (8), 1923-32
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



V



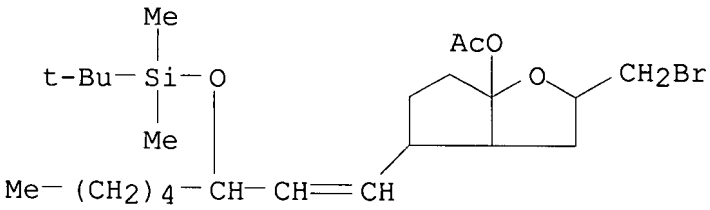
VI

AB A number of synthetic approaches to the title compds. are described. The key intermediates allylcyclopentanones I (R = H, OH, R1R2 = O) (II and III, resp.) were prepared from cyclopent-2-enone using the organocuprate conjugate addition-enolate alkylation reaction. Selective functionalization of the allylic double bond in II and protected derivs. of alc. I (R = R2 = H, R1 = OH) (IV) were attempted using Br in AcOH, NBS in aqueous DMSO, and I2-Ag2CrO4, but these reactions were not useful in the preparation of the title compds., although a number of interesting observations were made, including the preparation of the novel tricyclic compound V by sequential trichloroacetylation, iodination-oxidation, and cyclization of IV. The diastereoisomeric deoxyhomoprostacyclins (4-exo-E)-(3'R)-, -(3'S)-, (4-exo-Z)-(3'R)-, and -(3'S)-VI were prepared in 5 steps from III.

IT 83345-30-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 83345-30-6 CAPLUS

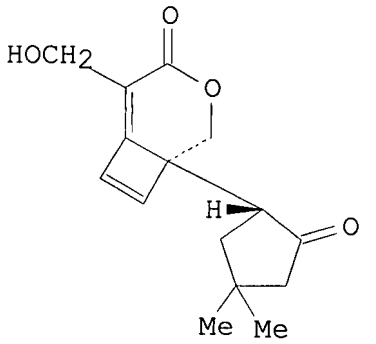
CN 6aH-Cyclopenta[b]furan-6a-ol, 2-(bromomethyl)-4-[3-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-octenyl]hexahydro-, acetate (9CI) (CA INDEX NAME)



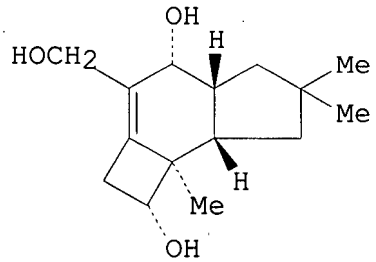
CC 26-3 (Biomolecules and Their Synthetic Analogs)
Section cross-reference(s): 27

IT 82393-43-9P 82393-44-0P 82393-46-2P 82393-51-9P 82442-97-5P
83345-30-6P 83345-32-8P 83345-34-0P 83345-35-1P
83345-36-2P 83345-39-5P 83345-40-8P 83345-41-9P 83377-89-3P
83377-90-6P 83377-91-7P 83377-92-8P 83377-99-5P 83378-01-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1982:69234 CAPLUS
DOCUMENT NUMBER: 96:69234
TITLE: Synthesis of racemic fomannosin and illudol using a biosynthetically patterned common intermediate
AUTHOR(S): Semmelhack, M. F.; Tomoda, Shuji; Nagaoka, Hiroto; Boettger, Susan D.; Hurst, Kenneth M.
CORPORATE SOURCE: Dep. Chem., Princeton Univ., Princeton, NJ, 08544, USA
SOURCE: Journal of the American Chemical Society (1982), 104(3), 747-59
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

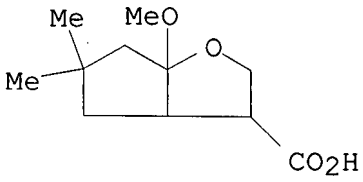


II

AB A total synthesis of (±)-fomannosin (I) was achieved via a Diels-Alder reaction of a cyclobutenecarboxylate with a vinylcyclopentene which generates the tricyclic protoilludane skeleton stereoselectively. The

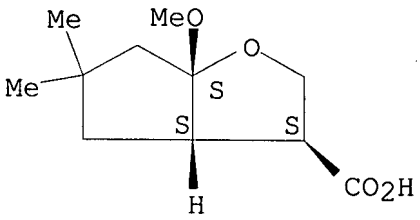
adduct is converted through a series of 8 steps to (±)-illudol (II), a natural protoilludane sesquiterpene, and through 11 steps to give I.

IT 79813-00-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and chlorination of)
RN 79813-00-6 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-methoxy-5,5-dimethyl-
, sodium salt (9CI) (CA INDEX NAME)



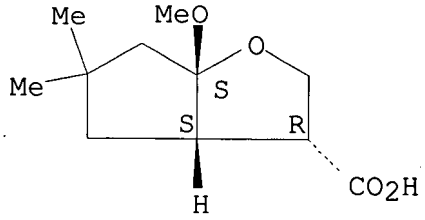
IT 79745-75-8P 79812-99-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and neutralization of)
RN 79745-75-8 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-methoxy-5,5-dimethyl-
, (3α,3aα,6aα)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



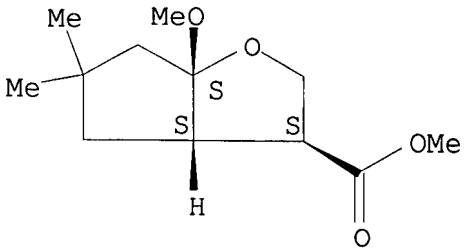
RN 79812-99-0 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-methoxy-5,5-dimethyl-
, (3α,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



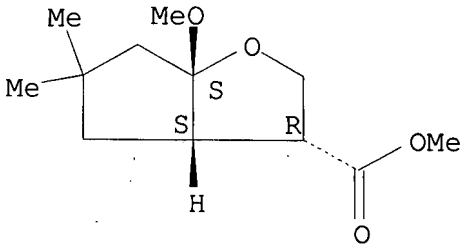
IT 79745-74-7P 79812-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and saponification of)
RN 79745-74-7 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-methoxy-5,5-dimethyl-
, methyl ester, (3α,3aα,6aα)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



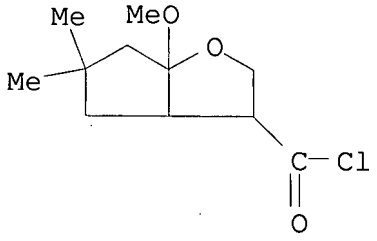
RN 79812-98-9 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carboxylic acid, hexahydro-6a-methoxy-5,5-dimethyl-
, methyl ester, (3α,3aβ,6aβ)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



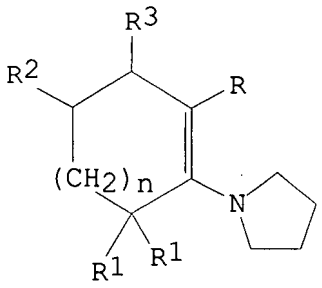
IT 79745-76-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and successive dehydrochlorination and cycloaddn. with

ethoxyacetylene)
RN 79745-76-9 CAPLUS
CN 2H-Cyclopenta[b]furan-3-carbonyl chloride, hexahydro-6a-methoxy-5,5-dimethyl- (9CI) (CA INDEX NAME)

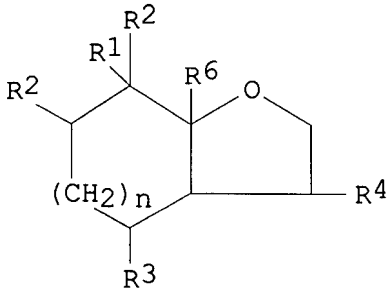


CC 30-15 (Terpenes and Terpenoids)
IT 79813-00-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and chlorination of)
IT 79745-75-8P 79812-99-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and neutralization of)
IT 79745-74-7P 79812-98-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and saponification of)
IT 79745-76-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and successive dehydrochlorination and cycloaddn. with ethoxyacetylene)

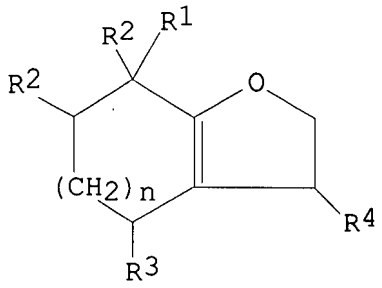
L5 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1981:83863 CAPLUS
DOCUMENT NUMBER: 94:83863
TITLE: Enamine chemistry. XX. Synthesis of furan derivatives by reductive cyclization of enamines
AUTHOR(S): Carlsson, S.; El-Barbary, A. A.; Lawesson, S. O.
CORPORATE SOURCE: Dep. Org. Chem., Univ. Aarhus, Aarhus, DK-8000, Den.
SOURCE: Bulletin des Societes Chimiques Belges (1980), 89(8), 643-9
CODEN: BSCBAG; ISSN: 0037-9646
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 94:83863
GI



I



II



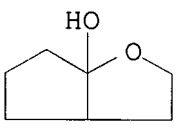
III

AB Enamines I (R = CHR4CO2R5; R1-R4 = H, Me; R5 = Me, Et) were obtained in 41-68% yield by treating I (R = H) with BrCHR4CO2R5. LiAlH4 reduction of I (R = CHR4CO2R5) gave the furans II (R6 = pyrrolidino) which were hydrolyzed to II (R6 = OH). Treatment of II (R6 = pyrrolidino) with oxalic acid-dioxane gave III.

IT 73859-58-2P 76593-95-8P 76593-96-9P 76593-97-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and ring-chain tautomerism of)

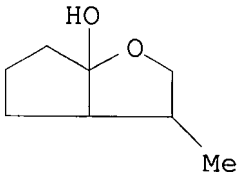
RN 73859-58-2 CAPLUS

CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro- (9CI) (CA INDEX NAME)

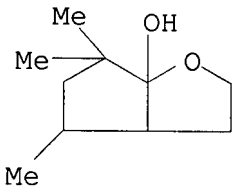


RN 76593-95-8 CAPLUS

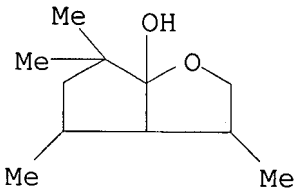
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-3-methyl- (9CI) (CA INDEX NAME)



RN 76593-96-9 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-4,6,6-trimethyl- (9CI) (CA INDEX NAME)



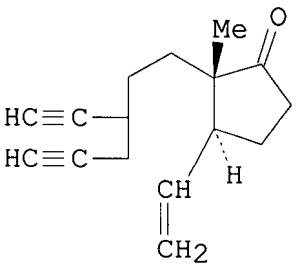
RN 76593-97-0 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-3,4,6,6-tetramethyl- (9CI) (CA INDEX NAME)



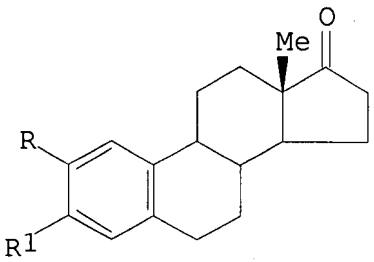
CC 27-7 (Heterocyclic Compounds (One Hetero Atom))
IT 10198-27-3P 24804-46-4P 57133-57-0P 66806-73-3P 73859-58-2P
76593-75-4P 76593-76-5P 76593-77-6P 76593-78-7P 76593-79-8P
76593-80-1P 76593-81-2P 76593-82-3P 76593-91-4P 76593-92-5P
76593-93-6P 76593-94-7P 76593-95-8P 76593-96-9P
76593-97-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and ring-chain tautomerism of)

L5 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:514810 CAPLUS
DOCUMENT NUMBER: 93:114810
TITLE: Transition-metal-catalyzed alkyne cyclizations. A cobalt-mediated total synthesis of dl-estrone
AUTHOR(S): Funk, Raymond L.; Vollhardt, K. Peter C.
CORPORATE SOURCE: Dep. Chem., Univ. California, Berkeley, CA, 94720, USA

SOURCE: Journal of the American Chemical Society (1980), 102(16), 5253-61
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I



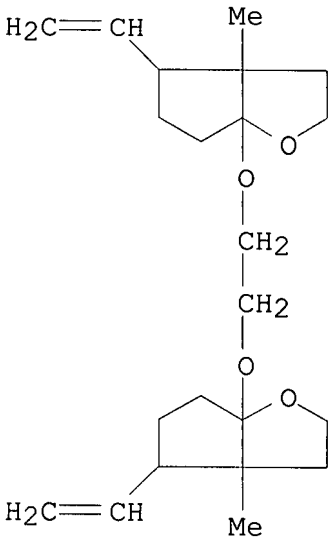
II

AB Racemic steroids, including estrone, were prepared via cobalt-catalyzed cooligomerization of hexadiyne I with alkynes. Thus, I cyclized with Me3SiC.tplbond.CSiMe3 in the presence of cyclopentadienylcobaltdicarbonyl to give estratrienone II (R = R1 = SiMe3), and I cyclized with MeOC.tplbond.CSiMe3 to give II (R = MeO, R1 = SiMe3; R = SiMe3, R1 = MeO) in low yield. Estrone can be obtained with poor regioselectivity from the cyclic ethylene ketal of II (R = R1 = SiMe3) by bromination and conversion of the Br group toa HO group. Selective protodesilylation of II (R = R1 = SiMe3) at low temps. to II (R = H, R1 = SiMe3) followed by oxidative cleavage of C-Si bond with Pb(O2CCF3)4 gave estrone (prepared in 5 steps and 21.5% yield from 2-methylcyclopent-2-en-1-one and 6 steps and 15.1% yield from HC.tplbond.C(CH2)2C.tplbond.CH). There was a slight improvement of the yields via cyclization of the ethylene ketal of I (23.1 and 16.2%, resp.).

IT 74384-70-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

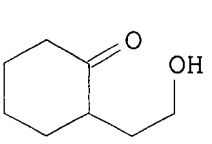
RN 74384-70-6 CAPLUS

CN 2H-Cyclopenta[b]furan, 6a,6'a-[1,2-ethanediylbis(oxy)]bis[4-ethenylhexahydro-3a-methyl- (9CI) (CA INDEX NAME)

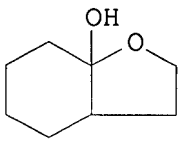


CC 32-3 (Steroids)
IT 69505-08-4P 69505-09-5P 72938-90-0P 74384-70-6P
74384-71-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT
(Reactant or reagent)
(preparation and hydrolysis of)

L5 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1980:407389 CAPLUS
DOCUMENT NUMBER: 93:7389
TITLE: Structural effects on the hemiacetalization of 2-(hydroxyalkyl)cyclanones
AUTHOR(S): Cazaux, Michel; De Jeso, Bernard
CORPORATE SOURCE: Lab. Chim. Appl., Ec. Natl. Super. Chim. Bordeaux, Talence, 33405, Fr.
SOURCE: Comptes Rendus des Seances de l'Academie des Sciences,
Serie C: Sciences Chimiques (1980), 290(2), 49-51
CODEN: CHDCAQ; ISSN: 0567-6541
DOCUMENT TYPE: Journal
LANGUAGE: French
GI



I

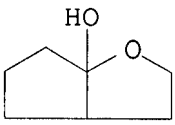


II

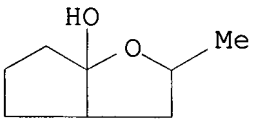
AB An NMR study of the ring-chain tautomerism of cyclic ketols, e.g., I .dblharw. II, indicates that the ring size of both the starting cycloalkanone and the heterocyclic compound influence the equilibrium Thus, a cyclopentanone derivative favors the monocyclic forms; the cyclohexanone derivative leads more easily to the hemiacetal. Also, a THF derivative is formed with more difficulty than the tetrahydropyran derivative

IT 73859-58-2 73859-59-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(ring opening of, NMR in relation to)

RN 73859-58-2 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro- (9CI) (CA INDEX NAME)



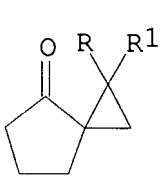
RN 73859-59-3 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-2-methyl- (9CI) (CA INDEX NAME)



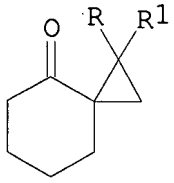
CC 22-6 (Physical Organic Chemistry)
IT 13377-10-1 57133-57-0 73859-58-2 73859-59-3
73859-60-6 73859-61-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(ring opening of, NMR in relation to)

L5 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:508248 CAPLUS
DOCUMENT NUMBER: 89:108248
TITLE: Competitive thermal and photochemical processes in cyclopropyl ketone rearrangements. I. Photolysis of spiro[n.2]alkan-2-ones
AUTHOR(S): Lee-Ruff, Edward; Khazanie, Prabhakar Govind
CORPORATE SOURCE: Dep. Chem., York Univ., Downsview, ON, Can.
SOURCE: Canadian Journal of Chemistry (1978), 56(6), 803-7

CODEN: CJCHAG; ISSN: 0008-4042
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



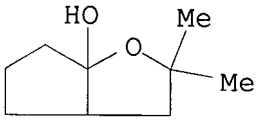
I



II

AB Irradiation of spiroketones I (R = H, R1 = Me; R = Me, R1 = H) in MeOH gave mainly products of type I reaction, whereas I (R = R1 = Me) and II (R = Me, R1 = H; R = R1 = Me) gave type II products. Formation of type II products can arise by 2 different mechanisms. One involves the intermediacy of a dienol which can be trapped with MeOD. Photochem. degradation of the cyclopentanones was slower than that of the corresponding cyclohexanones.

IT 66806-66-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 66806-66-4 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-2,2-dimethyl- (9CI) (CA INDEX NAME)

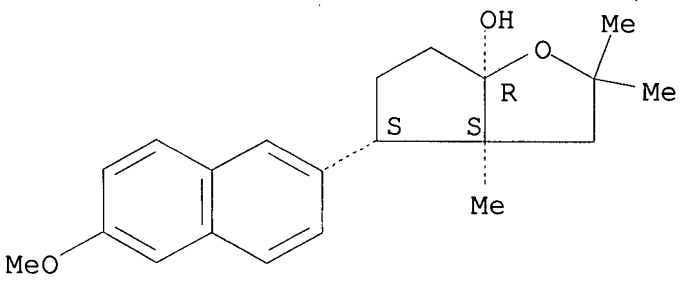


CC 24-4 (Alicyclic Compounds)
IT 1193-70-0P 4187-81-9P 4668-64-8P 16429-05-3P 57133-52-5P
57133-54-7P 66806-64-2P 66806-65-3P 66806-66-4P
66806-67-5P 66806-68-6P 66806-69-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1974:491787 CAPLUS
DOCUMENT NUMBER: 81:91787
TITLE: 9,11-Seco steroids derived from estradiol 3-methyl ether

AUTHOR(S): Dygos, John H.; Chinn, Leland J.
CORPORATE SOURCE: Dep. Chem. Res., Searle Lab., Chicago, IL, USA
SOURCE: Journal of Organic Chemistry (1973), 38(25), 4319-24
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB 9,11-Secosteroids I (RR1 = O; R = HO, R1 = HC.tplbond.C) were prepared from estradiol 3-methyl ether. A key step was the stereoselective addition of HC.tplbond.CMgBr to the more hindered side of I (RR1 = O). Addition of HC.tplbond.CMgBr to cyclic ketal II yielded secopregnyne III. I (RR1 = O) possessed weak estrogenic activity and II possessed antifertility activity without having estrogenic activity.
IT 42151-20-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antifertility activity of)
RN 42151-20-2 CAPLUS
CN 6aH-Cyclopenta[b]furan-6a-ol, hexahydro-4-(6-methoxy-2-naphthalenyl)-2,2,3a-trimethyl-, [3aS-(3aα,4α,6aα)]- (9CI) (CA INDEX NAME)

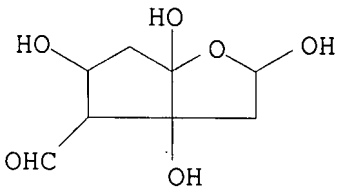
Absolute stereochemistry.



CC 32-3 (Steroids)
IT 42151-20-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and antifertility activity of)

L5 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1973:57821 CAPLUS

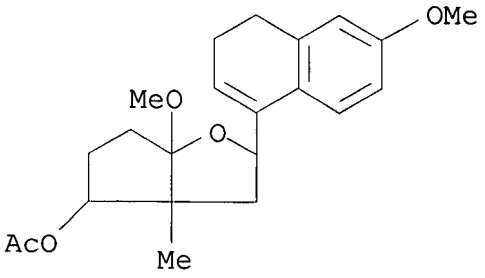
DOCUMENT NUMBER: 78:57821
TITLE: Design of prostaglandin synthesis
AUTHOR(S): Brewster, D.; Myers, M.; Ormerod, J.; Spinner, M. E.;
Turner, S.; Smith, A. C. B.
CORPORATE SOURCE: Pharm. Div., Reckitt and Colman, Hull, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1972), (22), 1235-6
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 78:57821
GI For diagram(s), see printed CA Issue.
AB Prostaglandin F2α (I) was prepared in 13 steps from endo-dicyclopentadiene which was converted to the bicyclo[3.3.0]octane derivs. (II, R = CHO, CO2H, Ac; III, R = Ac, R1 = OH, OAc; R = R1 = OAc,
OH) and hence to the enone (IV). Protection as the CCl3CH2 derivative, reduction,
acetylation, and deprotection followed by a Wittig reaction and deacetylation gave I and its 15-epimer.
IT 39762-81-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 39762-81-7 CAPLUS
CN 2H-Cyclopenta[b]furan-4-carboxaldehyde, hexahydro-2,3a,5,6a-tetrahydroxy-
(9CI) (CA INDEX NAME)



CC 24-4 (Alicyclic Compounds)
IT 23518-25-4P 39762-23-7P 39762-24-8P 39762-25-9P 39762-26-0P
39762-27-1P 39762-28-2P 39762-29-3P 39762-30-6P 39762-31-7P
39762-32-8P 39762-34-0P 39762-35-1P 39762-37-3P 39762-81-7P
39873-34-2P 61121-09-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1971:498715 CAPLUS
DOCUMENT NUMBER: 75:98715
TITLE: Peracid oxidation of dl-3-methoxy-8,14-secoestra-1,3,5(10),9(11)-tetraene-3,17-dione
AUTHOR(S): Daniewski, A. R.; Guzewska, M.; Kocor, M.; Baran, J.

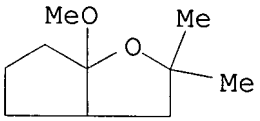
S.
CORPORATE SOURCE: Inst. Org. Chem., Pol. Acad. Sci., Warsaw, Pol.
SOURCE: Bulletin de l'Academie Polonaise des Sciences, Serie
des Sciences Chimiques (1971), 19(5), 313-16
CODEN: BAPCAQ; ISSN: 0001-4095
DOCUMENT TYPE: Journal
LANGUAGE: English
GI For diagram(s), see printed CA Issue.
AB (±)-11,14α-Epoxy-14β-hydroxy-3-methoxy-8,14-secoestra-1,3,5(10),8-tetraen-17-one (I) is prepared by the per acid oxidation of (±)-II. Thus, (±)-II is treated with m-chloroperbenzoic acid to give I. I is treated with BF3 etherate to give (±)-III. (±)-II is treated with H2O2 in the presence of PhCN to give (±)-IV. NMR spectra data are given for I, III and IV.
IT 24432-10-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 24432-10-8 CAPLUS
CN 8,14-Secoestra-1,3,5(10),8-tetraen-17β-ol, 11,14α-epoxy-3,14-dimethoxy-, acetate (8CI) (CA INDEX NAME)



CC 32 (Steroids)
IT 250-49-7DP, 2H-Cyclopenta[b]furan, steroid derivs. 24421-61-2P
24432-09-5P 24432-10-8P 30041-28-2P 33610-66-1P
33610-67-2P 33710-45-1P 51270-58-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:476454 CAPLUS
DOCUMENT NUMBER: 73:76454
TITLE: Molecular photochemistry. XXVII. Photochemical ring
expansion of cyclobutanone, substituted cyclobutanones, and related cyclic ketones
AUTHOR(S): Morton, Douglas R.; Lee-Ruff, Edward; Southam, Richard
M.; Turro, Nicholas J.
CORPORATE SOURCE: Chem. Dep., Columbia Univ., New York, NY, USA

SOURCE: Journal of the American Chemical Society (1970), 92(14), 4349-57
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 73:76454
GI For diagram(s), see printed CA Issue.
AB The photochem. reactions of substituted cyclobutanones in MeOH are reported. Cyclobutanone, for example, yields 2-methoxytetrahydrofuran via an initial α-cleavage to give the most stable 1,4-acyl alkyl diradical which undergoes subsequent or concerted rearrangement and rebonding to the corresponding oxacarbene intermediate. Oxacarbenes are intermediates in these photolyses, and related systems which undergo ring expansion (e.g., benzocyclobutene-1,2-dione, cyclocamphanone, and I) are compared.
IT 29921-84-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 29921-84-4 CAPLUS
CN 2H-Cyclopenta[b]furan, hexahydro-6a-methoxy-2,2-dimethyl- (8CI) (CA INDEX NAME)



CC 22 (Physical Organic Chemistry)
IT 4237-83-6P 13436-45-8P 17546-39-3P 17628-40-9P 17628-41-0P
17636-99-6P 22566-27-4P 22566-30-9P 22566-33-2P 24186-30-9P
24186-31-0P 24186-33-2P 29916-03-8P 29916-04-9P 29916-05-0P
29916-06-1P 29916-07-2P 29916-08-3P 29916-09-4P 29916-10-7P
29921-78-6P 29921-84-4P 29921-89-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L5 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1970:13001 CAPLUS
DOCUMENT NUMBER: 72:13001
TITLE: 11,14α-Epoxy-8,14-Secogona-1,3,5(10),8-tetraenes
INVENTOR(S): Baran, John S.
PATENT ASSIGNEE(S): G.D. Searle and Co.
SOURCE: U.S., 3 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3476773	A	19691104	US 1967-663527	19670828

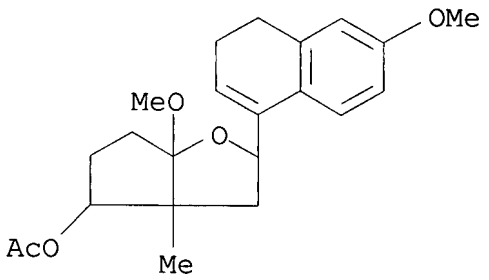
<--
PRIORITY APPLN. INFO.: US 1967-663527 A 19670828

AB Epoxidn. of 3-methoxy-8,14-secoestra-1,3,5(10),9(11)-tetraene-14,17-dione in CHCl3 at 10° with m-chloroperbenzoic acid 15 min gave dl-11,14α-epoxy-14β-hydroxy-3-methoxy-8,14-secoestra-1,3,5(10),8-tetraen-17-one (I), m. 156-7° (Me2CO-hexane). I in MeOH with p-MeC6H4SO3H at room temperature 16 hr afforded dl-11,14α-epoxy-3,14β-dimethoxy-8,14-secoestra-1,3,5-(10),8-tetraen-17-one (II). Reduction of II in tetrahydrofuran with LiAl(OBu-tert)3H at room temperature 15 min gave dl-11,14α-epoxy-8,14-secoestra-1,3,5(10),8-tetraene-3,14β,1 7β-triol 3,14- dimethyl ether, which on acetylation gave the 17-acetate.

IT 24432-10-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 24432-10-8 CAPLUS

CN 8,14-Secoestra-1,3,5(10),8-tetraen-17β-ol, 11,14α-epoxy-3,14-dimethoxy-, acetate (8CI) (CA INDEX NAME)



IC C07D; A61K
INCL 260346200
CC 32 (Steroids)
IT 24421-61-2P 24432-09-5P 24432-10-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

=> log y
COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	156.77	329.08

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-21.06	-21.06

STN INTERNATIONAL LOGOFF AT 14:18:25 ON 08 OCT 2007